

5,510,740 issued to Farrell et al. ("Farrell"). In particular, the Examiner references Figure 8 of Farrell as an apparatus that anticipates Applicant's invention as claimed in the above referenced claims. The Examiner has also rejected Applicant's prior arguments as unpersuasive. Applicant respectfully disagrees with the Examiner's characterization of the present invention in view of the cited art and states the following in support of his position.

Regarding independent claims 1 and 9, the Examiner states that Farrell "discloses in Figure 8 an apparatus comprising a filter 820 received an input signal (reset signal) 802 via a processing element 816 for producing a pulse signal 826 and a latch 824 coupled to the filter for latching the pulse signal as claimed in claims 1, 6, 9 and 15." Further, the Examiner rejects Applicant's prior argument that Farrell does not teach or suggest the limitation "the filter module produces a pulse signal in response to an edge of the input logic signal" and that Farrell teaches away from claims 1 and 9 because it discloses a required clock input line 102 for proper functioning of the circuit.

The Examiner states that "column 21, lines 34-44, of Farrell teaches the filter module produces a pulse signal in response to an edge of the input logic signal". Applicant respectfully disagrees with this assertion. In this regard, Applicant respectfully directs the Examiner to Applicant's prior arguments and additionally points out that it is not made clear in column 21, lines 34-44 of Farrell that the reset filter 820 produces a pulse signal

in response to an edge of the reset signal of reset input line 802 (the input logic signal). Applicant respectfully suggests that Farrell instead teaches away from filter 820 producing a pulse signal in response to an edge of the reset signal. As stated in column 21, lines 41-44 of Farrell, the output of reset filter 820, while possibly a pulse, is only applied to the reset leading edge detector 808 when the reset signal of reset input line 802 is "of a predetermined time duration because of the action of reset filter 820". Reset filter 820 is thus not producing a pulse signal in response to an edge of the reset signal, but instead only in response to a predetermined time duration reset signal.

Further, unlike Applicant's invention as claimed in independent claims 1 and 9, Farrell discloses, in column 21, lines 45-56, that the output of reset filter 820 (the filter module) is applied to reset leading edge detector 808, the output of which is representative of the **leading** edge of the reset signal (input logic signal). Not only does Farrell not teach or suggest a filter module that produces a pulse signal in response to an edge of the input logic signal, it instead teaches that a different module altogether (reset leading edge detector 808) produces a signal representative of only the leading edge of the input logic signal. Therefore, Farrell does not teach or suggest a filter module that produces a pulse signal in response to an edge of an input logic signal, as claimed by Applicant, and therefore cannot anticipate independent claims 1 and 9.

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Further still, Applicant respectfully disagrees with the Examiner's statement that "the recitation of claim

recites the transition term 'comprises' which is interpreted as 'being inclusive or open-ended and does not exclude additional, un-recited elements or method steps' (MPEP Sec. 2111.03). Further, there is no mention of clock input 102 in the rejection of the claim. Therefore the existence of clock input 102 is a non-issue." While the term "comprises" may indeed include additional, un-recited elements, the additional, un-recited elements are considered to be equivalent or well-known elements that are either clearly required or clearly not required for the proper operation of the claimed invention, as interpreted in view of the specification. In this regard, a rubber gasket or a loudspeaker would clearly not be considered relevant to, or part of, the Applicant's claimed invention, even though they are un-recited. Applicant's claimed invention could therefore not be considered to infringe an invention that required a loudspeaker or to be anticipated by a reference requiring a loudspeaker.

Thus, the exclusion of an element clearly required by the prior art is significant and is clearly an issue. It is a basic tenet of patent law that a claimed invention requiring fewer elements does not infringe a claimed invention requiring more elements. A large percentage of inventions in fact are improvements over the prior art wherein the need for one or more previously required elements is eliminated. Therefore, a reference such as Farrell that requires an element not required by the Applicant's invention as claimed in independent claims 1 and 9, cannot anticipate claims 1 and 9, regardless of whether or not the Examiner mentions the additional element as part of the rejection. For the foregoing reasons, the

Applicant submits that independent claims 1 and 9 are not anticipated by Farrell and thus overcome the present rejection. Applicant therefore respectfully requests that the Examiner allow independent claims 1 and 9.

Dependent claim 6 depends from independent claim 1 and contains, by virtue of its dependency, all of the limitations of the allowable independent claim from which it depends. Dependent claims 11 and 15 depend from independent claim 9 and contain, by virtue of their dependency, all of the limitations of the allowable independent claim from which they depend. Applicant therefore submits that dependent claims 6, 11 and 15 are patentably distinct and also overcome the Examiner's rejection. Applicant therefore requests that the Examiner remove the rejection and allow claims 6, 11 and 15.

Rejections under 35 U.S.C. § 103

The Examiner rejected claims 2-3 and 12 under 35 U.S.C. 103(a) as being unpatentable over Farrell in view of U.S. Patent 6,121,812 issued to Tsukikawa. In particular, the Examiner states that Farrell "discloses all the claimed invention except for having a latch element comprising specific components being configured as claimed. Tsukikawa discloses in Figure 8 a latch circuit 30 comprising a first inverter 42 and a second inverting logic element (NAND gate 43) being configured as recited in claims 2-3. It would have been obvious to one skilled in the art to replace a generic latch circuit disclosed by Farrell by the one taught by Tsukikawa . . ."

Applicant respectfully disagrees with the Examiner. Applicant reasserts the arguments presented in the preceding section with regards to the Examiner's 35 U.S.C. 102(b) rejections of claims 1, 6, 9, 11 and 15. Because Farrell does not teach or suggest an edge sensitive detection circuit as claimed by Applicant in independent claims 1 and 9, dependent claims 2 and 3 (which depend from claim 1) and dependent claim 12 (which depends from claim 9) cannot be rendered obvious by Farrell either alone, or in combination with any other art. In this regard, Applicant respectfully points out that in order to combine references for an obviousness rejection, there must be some teaching, suggestion or incentives supporting the combination. *In re Laskowski*, 871 F.2d 115, 117, 10 U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989). The mere fact that the prior art could be modified does not make that modification obvious unless the prior art suggests the desirability of the modification. *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). In addition, it is well established that Applicant's disclosure cannot be used to reconstruct Applicant's invention from individual pieces found in separate, isolated references. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988).

Applicant respectfully submits that not only does Farrell not disclose Applicant's invention as claimed, but there is no motivation, teaching or suggestion to combine Farrell with Tsukikawa. Therefore, the rejection on a combination of these references is inappropriate. Applicant therefore respectfully requests withdrawal of the rejection and allowance of Claims 2, 3 and 12.

The Examiner rejected claims 4-5, 13-14 and 17-18 under 35 U.S.C. 103(a) as being unpatentable over Farrell in view of U.S. Patent 4,306,198 issued to Okada. In particular, the Examiner states that Farrell "discloses all the claimed invention except for having a filter element comprising specific components being configured as claimed. Okada discloses in Figure3 an apparatus comprising a capacitor C coupled to the input T1 and a gating circuit, including a controlled impedance Q5, Q6, coupled to the capacitor such that the capacitor and an impedance of at least one element of the gating circuit are tuned based on the rise time and fall time of the input signal as required by Claims 4-5 and 13-14." "It would have been obvious to one skilled in the art to replace a generic filter circuit disclosed by Farrell by the one taught by Okada . . ." The Examiner further states that "As to Claim 17, the scope of this claim is similar to the combination scope of claims 9 and 13-14. Thus, it is rejected for the same reasons as set forth above." Further, the Examiner states that "As to claim 18, the scope of this claim is similar to that of Claims 2 or 12. Thus, it is rejected for the same reason(s) set forth above."

Applicant respectfully disagrees with the Examiner. Applicant reasserts the arguments presented above with regards to the Examiner's 35 U.S.C. 102(b) rejections of claims 1, 6, 9, 11 and 15 and the arguments presented above with respect to the Examiner's 35 U.S.C. 103(a) rejections of claims 2, 3 and 12. Because Farrell does not teach or suggest an edge sensitive detection circuit as claimed by Applicant in independent claims 1 and 9, dependent claims 4

and 5 (which depend from claim 1) and dependent claims 13 and 14 (which depend from claim 9) cannot be rendered obvious by Farrell either alone, or in combination with any other art. For the same reasons, independent claim 17 cannot be rendered obvious by Farrell, either alone, or in combination with Okada. Claim 17 therefore also overcomes this rejection and is allowable. Claim 18 depends from claim 17, and as such is patentably distinct and allowable as a further limitation upon Claim 17. Therefore, Applicant respectfully requests the Examiner withdraw the rejection and allow claims 4, 5, 13, 14, 17 and 18.

Claim Objections

The Examiner objected to claims 7, 8, 10 and 16 as being dependent upon a rejected base claim. For the reasons given above, Applicant believes all independent claims of the present application (claims 1, 9 and 17) to be in condition for allowance. Thus, because claims 7 and 8 depend from allowable independent claim 1, each is patentably distinct and allowable as a further limitation upon Claim 1. Similarly, because claims 10 and 16 depend from allowable independent claim 9, each is patentably distinct and allowable as a further limitation upon Claim 9. Therefore, Applicant respectfully requests the Examiner withdraw the objection and allow claims 7, 8, 10 and 16.

CONCLUSION

Applicants have now made an earnest attempt to place this case in condition for allowance. For the foregoing

reasons and for other reasons clearly apparent, Applicants respectfully request full allowance of Claims 1-18.

An extension of one (1) month is requested and a Notification of Extension of Time Under 37 C.F.R. § 1.136 with the appropriate fee is attached hereto.

The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication would advance the prosecution of the present invention.

Respectfully submitted,

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